## AMENDMENTS TO THE CLAIMS

1-55. (Canceled)

56. (Currently Amended) An integrated circuit, comprising:

a semiconductor substrate;

a gate structure having sidewalls, said gate structure being located over said semiconductor substrate;

a plurality of first diffusion regions implanted with a first dopant, said plurality of first diffusion regions each being adjacent to the sidewalls of said gate structure;

a plurality of second diffusion regions implanted with a second dopant, said plurality of second diffusions regions each being adjacent to the sidewalls of said gate structure;

wherein

each of said first diffusion regions is associated with and located beneath and adjacent to a respective second diffusion region;

each of said first diffusion regions includes a portion extending beneath said gate structure; and

none of said plurality of second diffusion regions include any portion which extends beneath said gate structure.

57. (Previously Presented) The integrated circuit of claim 56, wherein said first dopant is a n-type dopant.

58. (Previously Presented) The integrated circuit of claim 57, wherein said first dopant is chosen from a group consisting of phosphorous, arsenic, and antimony.

59. (Previously Presented) The integrated circuit of claim 56, wherein said first dopant is a p-type dopant.

60. (Previously Presented) The integrated circuit of claim 59, wherein said first dopant is chosen from a group consisting of boron, boron bifloride, and borane.

61. (Previously Presented) The integrated circuit of claim 56, wherein the first dopant concentration ranges from $1x10^{12}$ ions/cm$^2$ to $7x10^{12}$ ions/cm$^2$.

62. (Previously Presented) The integrated circuit of claim 61, wherein the first dopant concentration is $2x10^{12}$ ions/cm$^2$.

63. (Previously Presented) The integrated circuit of claim 56, wherein said first dopant is identical to said second dopant.

64. (Previously Presented) The integrated circuit of claim 63, wherein said first dopant and said second dopant are different.

65. (Previously Presented) The integrated circuit of claim 63, wherein said first dopant and said second dopant are of different conductivity types.

66. (Currently Amended) [[An]] A semiconductor device comprising:

a substrate having a first surface;

a gate structure formed over said first surface, said gate structure having a thermally reoxidized sidewall, said thermally reoxidized sidewall having an interior surface and an exterior surface; and

a plurality of diffusion regions formed within said substrate, each of said diffusion regions being formed adjacent to the thermally reoxidized sidewall;

wherein

each of said diffusion regions respectively comprise first and second portions respectively having first and second dopant

concentrations, which are different and cause each portion to have a graded dopant concentration,

each of said first portions is partially located beneath said interior surface of said thermally reoxidized sidewall; [[and]]

each of said second portions is partially located underneath said exterior surface of said thermally reoxidized sidewall; [[and]]

none of said second portion is located underneath said interior surface of said thermally reoxidized sidewall, and

each of said first portions is associated with and located beneath and adjacent to a respective associated second portion.

~~each of said first portions including a region extending beneath said gate structure; and~~

~~none of said second portions having any region which extends beneath said gate structure.~~

67. (Previously Presented) The semiconductor device of claim 66, wherein said first dopant is chosen from a group consisting of: phosphorous, arsenic, and antimony.

68. (Previously Presented) The semiconductor device of claim 66, wherein said second dopant is chosen from a group consisting of: phosphorous, arsenic, and antimony.

69. (Previously Presented) The semiconductor device of claim 66, wherein said first dopant is chosen from a group consisting of: boron, boron bifloride, and borane.

70. (Previously Presented) The semiconductor device of claim 66, wherein said second dopant is chosen from a group consisting of: boron, boron bifloride, and borane.

71-75. (Canceled)